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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Confirmation No. 6143

Mitsuaki OSHIMA et al.

Docket No. 2000 1390

Serial No. 09/677,420

Group Art Unit 2634

RECEIVED

Filed October 5, 2000

Examiner A. Le

AUG 0 2 7002

COMMUNICATION SYSTEM

Technology Center 2000

AMENDMENT

THE COMMISSIONER IS AUTHORIZED TO CHARGE ANY DEFICIENCY IN THE FEES FOR THIS PAPER TO DEPOSIT ACCOUNT NO. 23-0975

Assistant Commissioner for Patents, Washington, D.C.

Sir:

In response to the Office Action of May 16, 2002, please amend the above-identified U.S. patent application as follows:

IN THE CLAIMS:

Please cancel claims 13-17 without prejudice or disclaimer to the subject matter therein.

Also, please add new claims 18-23 as follows.

18. A signal transmission apparatus comprising:

a modulator operable to assign each of a first data stream and a second data stream to a respective constellation in a vector space diagram to produce modulated signals wherein the number of signal points of the constellation for the first data stream is different from the number of signal points of the constellation for the second data stream; and

a transmitter operable to transmit the modulated signals.

wherein the first data stream has synchronization data and data for demodulation for demodulating the second data stream.

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